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TB Notes
No. 2, 1997

Dear Colleague:

This issue of *TB Notes* is dedicated to a group of employees whose work we all recognize as essential—TB outreach workers. Dr. Zach Taylor, Chief, Prevention Effectiveness Section, Research and Evaluation Branch, has been conducting a study of TB outreach workers across the country, and he had the idea of asking the field researchers in his study to write articles about these outreach workers and the important work they do. Despite important commitments and heavy workloads, several of the field researchers were able to prepare and submit articles describing their observations. We would like to share these articles with the TB control community as a tribute to this dedicated corps of workers. In many of our communities and cities, directly observed therapy (DOT) is the standard of care that is used in order to achieve the objectives of controlling and preventing TB. This standard of care is accomplished in many sites by outreach workers.

In response to a letter from the Chair of the Advisory Council for the Elimination of Tuberculosis (ACET), requesting a meeting with Dr. Donna Shalala, Secretary, Department of Health and Human Services, ACET members met March 25 with Dr. Jo Ivey Boufford, Acting Assistant Secretary for Health, DHHS; Dr. David Satcher, Director, CDC; and Dr. Helene Gayle, Director, National Center for HIV, STD, and TB Prevention, CDC. The ACET letter to Dr. Shalala outlined the following four areas of concern in terms of our nation's ability to eliminate TB: (1) the growing problem of TB in foreign-born persons, (2) the impact of performance partnership grants on TB control activities, (3) the impact of managed care on the control and clinical management of TB, and (4) the need for investment in developing a safe and effective TB vaccine. At the meeting, it was recommended that ACET assemble an expert panel to create a blueprint, with associated costs, to prevent and control TB in the United States. ACET will send a follow-up letter expressing appreciation for the meeting and suggesting actions.

The latest ACET meeting was held April 30-May 1, 1997, at the Sheraton Colony Square Hotel in Atlanta, Georgia. The agenda was unique in that it scheduled a joint meeting with ACET and the CDC Advisory Committee on HIV and STD Prevention to address mutual issues, and it allocated greater time to discussion of ACET's future goals and roles. Another agenda topic was ACET's plan to make a presentation to the National Vaccine Advisory Committee (NVAC) to state the case for, and express ACET's strong support for, TB vaccine development. We discussed the generation of ACET statements, and generally agreed that ACET should recommend needed statements and oversee their completion. We also discussed the importance of translating these statements into practice and evaluating current practices (or their implementation).

The 1997 American Lung Association (ALA)/American Thoracic Society (ATS) International Conference was held May 18-21 in San Francisco. There were many excellent presentations on TB. Particularly noteworthy was a poster colloquium on issues in TB control that touched on methods for screening and implementation of preventive therapy strategies for high-risk populations. The topic of protease inhibitors and TB medicines was featured in a minisymposium. Presentations on the impact of managed care on TB control and on causes and costs of TB hospitalizations generated much discussion. The CDC/ATS Public Health Poster Session was very well attended. It was announced at the meeting of the Scientific Assembly on Microbiology, Tuberculosis, and Pulmonary Infections that Paula Fujiwara, MD, Director, Bureau of Tuberculosis, NYC Department of Health, has been nominated to the position of program chair elect of the assembly.

Between June 2-6, a 1-week course on TB program evaluation in developing countries was conducted at CDC in Atlanta. The instructor was Dr. Thuridor Arnadottir, head of research for the International Union Against Tuberculosis and Lung Disease (IUATLD). Twenty-seven members of our staff participated. This course provided the first opportunity for several of our division staff to understand the basis and rationale behind the IUATLD mutual assistance programs. The course was very well received by participants.

The TB Program Managers Course was held in Atlanta June 9-13 at the Holiday Inn at Lenox. Participants included 30 program managers, TB controllers, public health advisors, and nurse consultants, and five observers (Model Center representatives and “new” staff from DTBE). Overall, the response to the course has been favorable and participants enjoyed the opportunity to network with managers from around the country. We are in the process of tabulating the results of the session and course evaluations and the results will be used to refine the course.

Kenneth G. Castro, MD

In This Issue

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Number 2, 1997

HIGHLIGHTS FROM STATE AND LOCAL PROGRAMS

Effectiveness of a Directly Observed Preventive Therapy Program in the New York State Correctional System

New York State's correctional system is among the largest in the United States, with 100,000 inmates housed in 70 facilities located throughout the state. Between 1985 and 1991, the incidence of TB among the inmate population increased from 15 cases (44/100,000) to over 102 cases (175/100,000). Historically, inmates constitute a population at high risk for developing active TB. This risk is compounded by the high proportion coinfected with TB and HIV. Blind seroprevalence studies conducted among incoming inmates between 1988-1995 indicated 12% of male entrants and 18% of female entrants to the state prison system were HIV positive. Studies for 1994 showed that 10% of male entrants were HIV positive, and studies for 1994-1995 indicated that 16% of female entrants were HIV positive.

To address the increasing rate of TB disease among the state's inmate population, a collaborative effort between New York State's Department of Health (DOH) and Department of Correctional Services (DOCS) was established in 1991 to provide directly observed preventive therapy (DOPT) to all eligible incoming inmates. The HIV-Related TB Prevention (HRTP) demonstration project was funded by CDC. This report focuses on the results of the 5-year project.

DOCS operates three main reception centers, two for males and one for females. At each reception facility, incoming inmates receive a medical examination (which includes screening for TB) prior to transfer to their permanent facility. Mantoux tests are routinely performed unless there is documentation in the medical record of prior PPD positivity and/or prior preventive or curative TB therapy. All PPD-positive inmates (≥5 mm) are further evaluated to rule out active TB disease and offered HIV testing. Six months of INH preventive therapy is recommended unless the inmate is HIV positive, when 12 months is prescribed. INH (900 mg) is administered twice weekly, directly observed by nurses in the prison infirmaries.

At intake during the HRTP project, DOCS staff completed history forms on all TB-infected inmates documenting TB history, HIV status, demographics, and preventive therapy recommendations. History forms were forwarded to the DOH Bureau of TB Control (BTBC) for entry into the tracking system, with copies kept as part of the inmate's medical record. Inmates recommended for preventive therapy were monitored by the BTBC at 3-month intervals to determine compliance with

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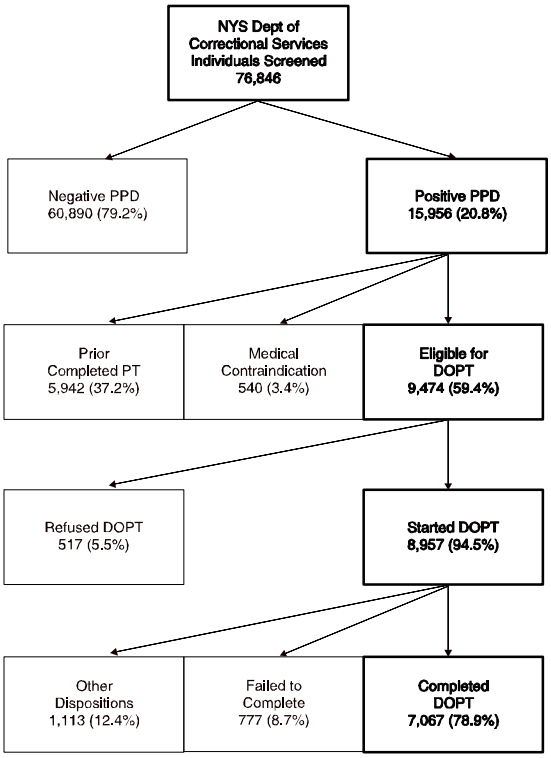
therapy. Since interfacility transfers are frequent, a time-consuming yet essential component of this project was identifying the current location of inmates transferred since last follow-up.

Over the 5-year project period, 76,846

Figure 1

New York State
HIV-Related TB Prevention
Project
1991-1995



individual inmates were screened; 15,956 (20.8%) were identified as TB infected. Rates of TB infection were higher among females (24.0% vs 20.6% among males), individuals 35 years and older (33.6% compared to 16.2% among those <35 years), and foreign-born (37.7% vs 15.6% among U.S.-born). HIV status was known for 42.4% of inmates with TB infection. Of these, 20.6% were HIV seropositive and 79.4% were HIV seronegative. Although offered to all PPD+ inmates, the majority refused HIV counseling and testing.

Of the 15,956 TB-infected inmates, 5,942 (37.2%) had documentation of prior preventive or curative therapy and 540

(3.4%) were considered ineligible due to medical contraindications, leaving 9,474 (59.4%) eligible for preventive therapy. Over 94% (8,957/9,474) of inmates recommended for therapy started INH prophylaxis. In the 5-year period, among inmates starting DOPT, 7,067 (78.9%) completed at least 6 months of preventive therapy. Reasons for not completing treatment included: 668 (7.5%) refused or were noncompliant, 691 (7.7%) were paroled or discharged from DOCS before they could complete therapy, 275 (3.1%) were discontinued due to medical reasons, 119 (1.3%) were diagnosed with active disease, 109 (1.2%) were lost to follow-up, and 28 (0.3%) died from medical conditions not related to TB. Figure 1 summarizes the overall results of the project.

Univariate analysis showed gender and HIV status were significant correlates ofcompletion of therapy. Of those eligible to complete 6 months of therapy, females were twice as likely to complete therapy as males (OR = 1.98, p<.001); individuals whose HIV status was negative or unknown were more likely to complete therapy compared to HIV-positive inmates (OR = 2.08, p<.001). There were no significant differences in completion rates by age, race/ethnicity, or birthplace (U.S.-born vs foreign-born).

The integration of two core activities was essential to the success of this large-scale preventive intervention in a high-risk population. First was DOCS' capability and commitment to provide screening and follow-up clinical services. DOCS was able to administer directly observed therapy to thousands of inmates located in dozens of facilities throughout the state, achieving a high completion of preventive therapy rate. Second was the intensive surveillance, timely follow-up, and feedback of information by the Bureau of TB Control.

—Reported by Shelley M. Zansky, PhD, Anne M. Roney, MS, John C. Grabau, PhD, MPH, New York State Bureau of TB Control; George T. DiFerdinando, MD, MPH, NYS Division of Family Health; and Margaret J. Oxtoby, MD, NYS Bureau of TB Control & CDC

TB Awareness Fortnight in Missouri

The timeframe of March 9-22, 1997, was declared TB Awareness Fortnight in Missouri. Some of the activities during this 2-week period included TB Grand Rounds that were sponsored by the American Lung Association of Western Missouri in Kansas City. The Grand Rounds were held on March 21 at St. Luke's Hospital in Kansas City and the University of Missouri-Kansas City (UMKC). They were conducted by Elsa Villarino, MD, from the Research and Evaluation Branch, DTBE, in Atlanta, Georgia. Approximately 80 physicians and medical students attended the session at St. Luke's and 100 physicians, medical students, and nurses attended the session at UMKC. Additional activities included the Governor signing a proclamation on March 20 observing TB Awareness Fortnight across the state and the Mayor of Kansas City signing a proclamation on March 24 in observance of World TB Day. On the eastern side of the state, the American Lung Association of Eastern Missouri in St. Louis sponsored a number of activities. Grand Rounds were held in various hospitals. Also, proclamations were signed by the County Executive of St. Louis County and the Mayor of St. Louis City declaring TB Awareness Fortnight in those areas. In addition, inservices were conducted for long-term care facilities in the eastern half of the state.

—Reported by Vic Tomlinson Missouri Bureau of TB Control

TB and Ultraviolet Light Therapy: A Bright Idea for Building Partnerships

Since the mid-1980s, the marked increase in the incidence of new cases of *M. tuberculosis* in the United States has focused the medical community's attention on low-cost, effective strategies to prevent the transmission of TB. Although TB rates have declined over the past 3 years, it continues to be a public health concern. Ultraviolet (UV) light is a relatively inexpensive and possibly useful adjunct in preventing the spread of TB in a variety of high-risk environments.

A task force consisting of a unique public-private partnership was formed in Missouri during 1996 to address the need for environmental controls in some high-risk facilities. Inspired by a national project developed by the Electric Power Research Institute (EPRI)—a coalition of member electric power utilities—the St. Louis-based task force was convened by Union Electric and EPRI to identify, implement, and study one potential low-cost means of preventing the spread of TB: ultraviolet germicidal irradiation (UVGI). The task force brought together a variety of parties who collaborated to develop the project: the local electric power utility, Union Electric; the Missouri Department of Health; St. Louis City and County health authorities; a community health nurse; clinicians from Washington University Medical School; consultants; architects; and engineers. Together they identified several high-risk institutions in the state of Missouri, three in a large metropolitan area and one in a smaller, mid-state city. These institutions have TB rates of 10-11/100,000—well above the Missouri average of 4.6/100,000 (1995 data). The institutions include two homeless shelters, a large urban medical center that serves high-risk patients, and a state correctional facility. A study of 30 St. Louis homeless shelters from 1993 to 1995, including the two that are part of the UVGI project, found TB infection prevalence rates as follows: 1993, 14.6%; 1994, 18.8%; and 1995, 15%.

The project's goal is to install UV lights throughout each target facility or in key transmission areas. For example, at the urban medical center, UV lights will be installed in the emergency room, the dialysis center, and the public waiting room. UV lighting is being installed in the visiting area at the correctional center, and lights are planned in congregant areas in the homeless shelters. The program will be monitored on a month-to-month basis by examining tuberculin skin test conversion rates for inmates, patients, and employees.

The Missouri task force decided to implement the UVGI project as a means of preventing transmission and as an inexpensive demonstration project. Although the efficacy of UV germicidal irradiation is somewhat controversial, research has suggested that in some settings, UVGI can effectively eradicate TB pathogens. The project utilizes short-wave (254 nm) UV bulbs. UV-C (290 to 100 nm), which includes the germicidal band 260 to 254 nm, can cause superficial, short-term skin and eye irritation but not skin cancer or cataracts in humans; in addition, UV-C in the germicidal band is a powerful disinfectant against infectious airborne organisms. Ultraviolet fixtures will primarily be installed in upper-room areas, but where upper-room UVGI is impractical because of low ceiling heights (8 feet or less), self-contained UV ceiling units with equivalent room air disinfection capabilities will be substituted.

What is perhaps most instructive and useful in the UVGI trial thus far is that the process provides a creative model for a public-private partnership. A committee began to meet in early 1995 to identify a goal that seemed attainable: reducing TB transmission. As the UVGI/TB idea was formed, appropriate individuals and groups were identified and invited to sit at the table, including the local electric utility, Union Electric. Individuals from the private sector were helpful in examining financial and technical issues. Community health groups brought in clinicians who understood public health problems. The committee found that each group or individual had its own unique perspectives and resources to offer, and tasks were accomplished more efficiently because power was shared equally by all.

The Missouri UVGI trial is sponsored through collaborative support from the coalition and in-kind contributions from each participating organization. Additional support including funding will be obtained, if needed, from various philanthropic sources such as foundations. Costs vary for installation of state-of-the-art UV lights; however, the cost is considerably less than for HEPA filtration systems and far less than for treating active TB disease.

While the Missouri project is taking place, UVGI is being employed in a variety of institutions throughout the United States—in a national trial and in correctional facilities, hospitals, and homeless shelters in areas like New York, Kansas City, Birmingham, and Houston. Other cities have been identified and are being considered for implementation of this project, e.g., New Orleans and Chicago. If the data show a reduction in the rate of TB transmission, the use of UV lights could prove to be a cost-effective technology that will have possible applications to other sites such as group homes and public housing units. The Missouri task force believes that the ease with which the project was conceived and implemented will inspire more successful public-private partnerships and coalition-building in other communities.

For more information, contact Dan Ruggiero, Division of TB Elimination, CDC, the TB control officer for Missouri at the start of the project; or the Missouri Department of Health, Bureau of TB Control, at (573) 751-6122; or EPRI Health Care Initiatives at (314) 863-1011 (Midwest Regional Office) or 1 (800) 424-EPRI (National Health Care Initiative Office).

—Reported by Vic Tomlinson, MPA
Chief, Missouri Bureau of TB Control
and James McEnroe, PhD,
Midwest Regional Mgr,
EPRI Health Care Initiative

Managed Care and Tuberculosis Control—A New Era

In many areas of the country, patients with TB are receiving care in managed care organizations. Managed care can be defined as a system of payment and/or delivery arrangement organized to control or coordinate use of health services by its enrolled members in order to contain spending and, hopefully, improve quality of health care. In some states, patients enrolled in Medicaid are receiving care in Medicaid managed care organizations. This includes some TB patients who may be eligible for Medicaid benefits because they have TB or because they meet other Medicaid eligibility criteria. Some states are enrolling uninsured persons into managed care systems. Finally, some TB patients are receiving health care in

managed care systems as an employee health benefit.

As public health leaders in TB control, we must assess the impact of these changes in health service delivery on core TB prevention and control activities. These activities include surveillance; clinical services, including provision of directly observed therapy (DOT); contact investigations; outbreak investigations; laboratory services; quality assurance; and screening and provision of preventive therapy.

During the past year, we have initiated a number of activities to address both the impact of managed care on TB control and the concerns of state and local health officials. We have organized and chaired symposia on this topic at several national meetings, including the 1996 National TB Controllers Meeting, the 1996 annual meeting of the American Public Health Association (in collaboration with the New Jersey Model TB Prevention and Control Center), and the 1997 Workshop on Managed Care at CDC. In addition, a number of us had the opportunity to participate in the Public and Private Health Care Summit on Comprehensive TB Care in the Era of Managed Care in Monterey, California, cosponsored by the California TB Controllers Association and the California Department of Health Services/TB Executive Committee. We have also worked with colleagues in the National Association of County and City Health Officials (NACCHO) on a study assessing the impact of managed care on TB control in three cities. This study, entitled *Tuberculosis Control and Prevention in a Changing Managed Care Environment--Challenges and Opportunities for Local Health Departments, Managed Care Organizations, and Others*, was recently published and may be obtained from the Publications Department at NACCHO, 440 First Street, NW, Suite 450, Washington, D.C. 21110, telephone number (202) 783-5550, fax number (202) 783-1583.

In these symposia and studies, a number of themes have emerged, including the urgency of ensuring the following: quality care for TB patients by health care providers with expertise in treating TB; continuous treatment and completion of therapy, with use of DOT; use of laboratories with expertise in mycobacteriology; timely reporting of cases to the health department and initiation of contact investigations; development and use of performance measures to monitor patient care and “public health performance”; and systems to ensure ongoing dialogue between health department staff and managed care organization providers.

We have found that even in areas where TB patients are eligible for care in managed care organizations, these patients often continue to receive all or some of their TB care in the health department. In light of this, two points are worth noting. First, it is critical for health department TB control programs to develop mechanisms to ensure that they are reimbursed for services they continue to provide to TB patients who may be enrolled in managed care organizations. The loss of revenue for health department TB control activities as a result of the movement of Medicaid-eligible patients into Medicaid managed care settings could be substantial. Second, health departments may need to meet “credentialing” standards of managed care organizations in order to qualify as providers under contractual agreements. This may involve upgrading information

systems and billing capabilities.

An important conclusion that has emerged from the symposia and studies is that the health department should continue to be involved in all aspects of TB prevention and control and should take the lead in the core public health functions of assurance, assessment, and policy making. In order to ensure that TB patients receive appropriate treatment and that public health aspects of TB control are accomplished, the duties and responsibilities of the managed care organization should be specified in a written contract. This contract would be between the purchaser (e.g., the state Medicaid Agency or the health department) and the managed care organization and would be legally binding. Involvement of local health department officials, in particular TB control officers, in the development of these contracts is critical to the success of this process. The Division of TB Elimination is currently working with the Center for Health Policy Research, George Washington University Medical Center, to develop model contract language to assist state and local TB control programs, State Medicaid agencies, and managed care organizations in the development of contract language on the patient management and public health aspects of TB.

—Reported by Bess Miller, MD, MSc
Division of TB Elimination

Tuberculosis 2000 Videotapes Attract International Audience

The Francis J. Curry National TB Center has received orders for the videotape version of *Tuberculosis 2000* from as far away as Israel, Nepal, Brazil, and Macao, in addition to requests from throughout the United States. Over 15,000 medical professionals participated in the three-part satellite series, originally broadcast in January and February of this year. The series features 10 national TB experts presenting the latest information about clinical TB and TB control. Continuing education credits for physicians and nurses are available for participants who view the videos in a group setting, proctored by a registered Site Coordinator, through August 29, 1997. Each video set can be purchased for $25 to cover duplication and shipping costs and contains three 2-hour VHS videocassettes, a course syllabus, and materials regarding CME and CE credits. To receive an order form, contact:

Tuberculosis 2000 Office
Francis J. Curry National TB Center
3180 18th Street, Suite 101
San Francisco, CA 94110
Tel: (415)502-7904
Fax: (415)502-7561
www.nationaltbcenter.edu

The Center's Web site also features a selection of answers, supplied by members of the National TB Center faculty, to the most commonly asked questions generated by course participants during the live broadcast of *Tuberculosis 2000*.

Tuberculosis 2000 is a joint project of the Francis J. Curry National TB Center, the Charles P. Felton National TB Center at Harlem Hospital, and the New Jersey Medical School National TB Center. Funding for this project was provided by CDC.

—Reported by Kay Wallis,
Distance Learning Projects Coordinator
Francis J. Curry National TB Center

SPECIAL FOCUS: OUTREACH WORKERS

Introduction

TB persists as a significant public health problem in the United States. Outreach activities, including the provision of directly observed therapy (DOT) to ensure patient adherence to treatment, are recognized as an important component of the current strategy to control TB. In response to the resurgence of TB, federal funding of TB-related outreach services has dramatically increased. Special emphasis was placed on curing nonadherent patients by employing outreach workers (ORWs) to locate, motivate, and "directly observe" patients taking medication. However, it has been difficult to exactly determine the contribution of outreach workers to TB control because of the absence of standardized guidelines regarding their job qualifications, service delivery functions, training requirements, and performance criteria. Variations among state/local TB programs may be reflected in their ORWs in terms of background and training, engagement in related activities such as patient education and case management, and the portion of their time devoted to such nondirect service functions as travel and paperwork. Therefore, DTBE undertook an observational study of state/local TB control ORWs to determine how these workers accomplish their tasks, the quality of their interactions with clients, the amount of time spent on different outreach activities, and quality of ORWs' interactions with their supervisors.

The study was conducted at six TB outreach programs in Chicago, Houston, Los Angeles, Massachusetts, Mississippi, and New York City. These sites were selected based on the incidence of TB, geographical location, environment, and the willingness of the TB control programs to participate in the study. These six sites reported 5,316 cases of TB in 1995, accounting for 23% of the TB cases reported in the United States.

The results of this observational study will provide a clear descriptive picture of the range of activities that ORWs perform and the types of constraints that may impede their efforts. Data on caseload activities, the time required to complete those activities, and interaction styles of ORWs with patients and health-care professionals have not been rigorously collected from a variety of locations in the past. These data will be useful for determining level of need for ORW personnel. In addition, the comparative analysis of ORWs' ability to achieve client compliance with such factors as their effectiveness in the community and in interaction with clients should yield valuable insights that can enhance the effectiveness of the ways in which these workers are recruited, trained, and supervised.

Data collection for this study was completed in December 1996, and the data are currently being analyzed. This issue of *TB Notes* has several articles written by the field researchers who participated in the data collection. These researchers have written of their impressions of "a day in the life of an outreach worker." The importance of the contributions of ORWs to current TB control efforts is recognized by all; now we can also appreciate the difficulties and small triumphs of their work.

—Reported by Zach Taylor, MD, MS
Division of TB Elimination

Wanted: Outreach Workers...

"Wanted: Outreach workers to work with TB patients. Must be multilingual and multicultural. Must be exceptionally flexible and willing to work virtually any hours including very early mornings, late evenings, weekends, holidays, and everything in between. Must have own vehicle that can stand up to nearly continuous use, high probability of accidents, and reasonable possibility of break-ins. Candidates should be tough enough to stand up to belligerent patients or family members, yet gentle enough to appear nonthreatening. Must be masters of time management yet flexible enough to roll with frequent schedule delays. Must be willing to take time out of very busy schedule to educate patients about TB treatment protocols and prevention strategies and fit them into conflicting context of patient's own perceived needs. Should be willing to serve as liaison with community agencies including social service and other health agencies. Strong sense of humor is highly desirable. Must be undaunted by seemingly systematic lack of infrastructure within communities including lack of street signs, poor lighting, nonfunctioning public pay phones, flooded roads, etc. Must be very creative and innovative especially when tracking new cases. We are in particular need of candidates who speak one or all of the following languages: Arabic, Bosnian, Cape Verdean Creole, Chinese (all major dialects), Haitian Creole, Hmong, Khmer, Kurdish, Laotian, Portuguese (especially Brazilian), Russian, Somali, Spanish, Vietnamese. All candidates must also be fluent in both spoken and written English. Must be willing to subsist on low pay and precious little recognition or glory. Applicants must be systematic about recordkeeping, maintaining patient confidentiality, and securing patient records. Benefits include: strong sense of camaraderie with other ORWs (though your opportunity to interact with them may be very limited depending upon placement), satisfaction of working within community, and improving the health of individual patients while preventing the further spread of TB among the general public. Send applications to the Massachusetts TB Control program and/or the Refugee and Immigrant Health program."

The above is not an actual job description, but could very well be one. During my 6 weeks of observation in Massachusetts I had the distinct honor of witnessing the hard work and unbending dedication of several TB ORWs. When asked to write a short article summarizing my observations, it was extremely difficult deciding which segments of my rich experience I would do best to share with the readers of *TB Notes*. Herewith are a few of the most powerful impressions that led me to have such high respect for the TB ORWs that I observed as well as ORWs everywhere.

Needle in the Haystack. "(Sigh) It's always on the third floor!" exclaimed one ORW as we walked up the steps of a three-story rowhouse so typical of this New England city. She was complaining about having to climb so many stairs, but in many ways this statement came to represent much of the important work performed by TB ORWs. In this neighborhood of three-story rowhouses, the third floor is almost always the top floor apartment. It is both physically and socially the most isolated and the most challenging to reach. Economically, these apartments are often the smallest and cheapest to rent and, therefore, are filled with tenants who could perhaps not afford to live anywhere else. Social isolation is part and parcel for many

TB patients. Many patients are recent immigrants and/or low-income residents who live outside or at the fringes of mainstream American society, and it is this aspect and not the actual level of the building that came to make this statement so poignant. It is the ORW's mandate to help find these isolated individuals, wherever they may be, whether it is in the poorest or richest neighborhoods, and ensure they comply with TB therapy.

Neither rain nor sleet nor snow... I was probably most impressed by how the ORWs were consistently undaunted by the hurdles and obstacles that they faced when in the field. They often visit patients in the riskiest neighborhoods, work long hours, and are systematically confronted by hurdles that seem to neither dampen their spirit nor impinge on their strong sense of dedication to their mission.

Many of the problems were infrastructural in nature: Street signs were often missing (one section of the city barely had any), making location of particular streets a very laborious and time-consuming process. ORWs were continuously stopping to ask for directions from pedestrians, postal carriers, gas stations, firehouses, etc. This was often complicated by incomplete record keeping by other staff who often forgot to record the patient's apartment number. In these cases, once the street address was found (such as an apartment complex), the ORW resorted to reading names on mailboxes or discarded letters or querying neighbors or the building superintendent to try to get some information on the exact residence of the patient. Also, public phones were often out of order, making answering pages in a timely manner virtually impossible.

ORWs, despite being state employees, were given no special parking privileges, permits, or dashboard placards. Fighting for parking meters and receiving parking tickets are, therefore, standard fare for most ORWs. It must be noted that one parking ticket can be equivalent to as much as 1 1/2 to 2 hours of an ORW's gross hourly wage. On the surface, ORWs seem to worry little about security issues, taking everything in stride. Much of this may be due to the fact that they are often well-known in these communities and therefore not always viewed as outsiders. Yet, during one patient visit which ended in the late evening, one female ORW expressed appreciation for the increased sense of security of having me walk with her to our cars. ORWs almost always work solo, sometimes venturing into poorly lit hallways in buildings that are borderline condemnable. In at least two instances we witnessed obvious signs of drug use or dealing in the immediate locale and one instance of the ORW's vehicle being burglarized.

Par for the course! With all these difficulties—and those mentioned above are merely a sampling—every ORW I met had an almost fatalistic or even defeatist acceptance of the hardships of the field. When asked, "What if you were given cellular phones?", each ORW had a similar reaction: wide-eyed enthusiasm "Yeah! That would be great! It would make things MUCH easier!", quickly followed by dismissal: "They'd never pay for that...they're too expensive." I kept thinking if a private corporation were in the business of TB control, they would not send out their workers into the field without adequate tools. The cost of portable phones could save valuable time in all aspects of the ORWs' fieldwork and could increase security. Similarly, belligerent patients, a patient who resents or even

resists treatment, or a whole day's schedule thrown off because of delays in the chest clinic were all accepted as very normal events. Humor seemed to be an essential means of coping with the many punches thrown at ORWs during the course of a typical day in the field.

Humane professionalism. Each of the ORWs had an incredible knack for balancing their need to help their clients with the need to stay within the confines of their mission. I witnessed ORWs donating used comforters and household items for patients. Some admitted to delivering medication that was related to the patient's HIV infection rather than their TB treatment per se on a weekend. Bringing candy for children in a household was common. Despite being tightly pressed for time, one ORW quickly put business aside in order to counsel and comfort a patient who was upset about learning about her TB diagnosis. The fact that the ORWs were so quick to go out of their way to care for their patients is perhaps the biggest testament to the extraordinary type of people who do this work. Couple that with the difficulties of the field and their low rate of compensation and it is just that much more impressive. If the job description above seemed rigorous, it is because of the high standards set by ORWs already in the field.

—Reported by Mark Karaczun, MPH
Massachusetts Field Researcher

TB Outreach Workers Making a Difference in Los Angeles County

Los Angeles County TB outreach efforts encompass a huge geographic area and involve a great diversity of people. Los Angeles County has an annual budget of approximately $2.4 billion. In October 1996, the Los Angeles County Department of Health Services (DHS) was reorganized, which resulted in the consolidation of health care services. Prior to 1996, outreach efforts were coordinated out of 33 DHS public health medical centers. With this reorganization, outreach efforts are now concentrated in 10 DHS medical centers and their satellite clinics. Therefore, outreach activities have been successfully maintained despite the strains of massive changes in DHS health care infrastructure.

As a field researcher in Los Angeles in the fall of 1996, I had the opportunity to directly observe outreach worker activities. In LA County, the outreach workers are called Community Health Workers (CHWs) and Senior Community Health Workers, with the Senior CHWs having added responsibilities. The Department of Health Services employs approximately 40 community health workers, and 14 of these workers are funded by CDC.

Community health workers have several responsibilities and a full workload. Most have a high school education and many have attended some college or nursing programs. On average, the salary range for full-time CHWs is between $26,820 and $27,780. A majority of the workers are women, are bilingual, and have worked for DHS for several years before being promoted to the position of a community health worker. Essentially, CHWs act as liaisons between the Department of Health Services, local homeless and drug rehabilitation programs, and the patients by clarifying and promoting DHS policies and programs. In addition, CHWs assigned to the Skid Row area make an effort to establish good relationships with hotel and mission managers as well as hospital staff. This aspect of the community health

worker's job is especially crucial in Los Angeles County since the public health care infrastructure is very decentralized. Moreover, Senior CHWs have the added responsibilities of coordinating TB screening and the delivery of medications between CHWs.

Homeless patients and recent immigrants from Afghanistan, Cambodia, Iran, Armenia, Mexico, Nicaragua, and other Latin American countries make up the majority of the patient population that CHWs serve. Their most important responsibilities revolve around making sure that a patient completes TB treatment. This requires directly observed therapy (DOT) to be given at the patient's residence, work site, school, or other mutually agreed upon location. Typically, most DOT occurs early in the morning before 7:30 am. An average DOT caseload for each community worker ranges from 12-20 patients per day. Community workers also put a great deal of effort into reminding patients of their clinic appointments through personal visits and/or telephone calls. Community workers also assist in identifying, tracing, and arranging appointments for the examination of a patient's contacts. At the end of each week, CHWs submit daily activity and mileage logs.

Community health workers in Los Angeles often engage in activities that enhance their effectiveness but are not necessarily a part of their job description. For example, many counsel patients on drug-related issues, sexually transmitted diseases, immigration, and parenting skills. Furthermore, some CHWs offer additional incentives in the form of little "presents" of food, clothes, storage space, additional transportation within the district, and pocket change to needy patients. Community workers are enthusiastic about their job and some patients recognize and appreciate their efforts. All the CHWs that I interviewed stated that they enjoy watching the health improve in most of their patients. Most CHWs feel that they are making a difference in the lives of sick patients.

There are factors that make some outreach activities more difficult. Personal safety is still a great concern and several community workers suggested that access to a cell phone and pepper spray for CHWs working alone could minimize the risks, especially in areas where public phones are nonexistent. Moreover, there is an increasing demand for patient transportation, especially since many of the consolidated clinics are now farther away from some patients' homes. Patient transportation requires additional resources. Since TB treatment involves giving several pills to each patient, medicines are sometimes packaged incorrectly. One CHW suggested that medications should be packaged in a way that the CHW could see the medications. In this way, the CHW could quickly double-check a patient's medications in the morning before he/she leaves the health center. Moreover, pediatric DOT cases are often difficult since the big pills are hard for the young children to take. Pediatric syrups, although more expensive, could increase the effectiveness of DOT in young children. Some CHWs feel that the paperwork involved in keeping track of patient's DOT records can be cumbersome. One supervisor dealt with this situation by streamlining the paperwork with computer-generated daily log sheets that already had each patient's name, medical number, address, and telephone number preprinted on the page. This action saved time at this clinic. Moreover, one CHW suggested that a preprinted message pad would enable

CHWs to leave clearer messages at a patient's residence when the patient is not there.

Overall, despite the many infrastructure changes at the LA County Health Department, TB outreach continues to be effective. According to the TB control program, in 1995, 1,622 cases of TB were reported in Los Angeles County. This represents a 9.6% decrease from 1994 (1,794 cases) and a 26% decrease since 1992. One supervisor commented that CHWs have had a tremendous impact. This person stated that "Basically the program is very good. We have seen the compliance rate go up. Completion rates have just soared. (In our clinic), the completion rate is about 95%-96%... These outreach workers have been very effective. In the past, we would give out the medicines and just hope. This has been the most effective thing that I have seen in 20 years of working in the community."

In summary, CHWs in Los Angeles County greatly increase the probability that patients will complete TB treatment and many clinics hope that resources will continue to be allocated to strengthen outreach efforts.

—Reported by Kathryn Azevedo
Los Angeles County Field Researcher

Mission Impossible: A Bronx Field Visit with a NYC Public Health Advisor

During my most recent visit to New York City on March 21, 1997, I had the opportunity to accompany a TB outreach worker in the field. Mrs. Dozene Guishard, Regional Manager for the Bronx, arranged for me to go out with one of her public health advisors (PHAs) on a Friday afternoon. Because of delays with many meetings, Dozene and I arrived at the Bronx Regional Office at 3 pm. One of the senior staff members offered to drive me to my next destination, provided that I was ready to leave at 4:30 pm promptly. At 3:20 pm Dozene asked me if I was still interested in going out into the field. I said, "Surely, why not," realizing that I would miss my ride home. Given my knowledge of the Bronx and the hospital location, I believed there was no way that this field visit could be accomplished within one hour on a late Friday afternoon.

Dozene introduced me to Judy Beckles, one of the PHAs in her unit, and said that we would be going to a local hospital in the South Bronx to lift a detention order on a TB patient who had been hospitalized with active TB since January. On our way out, Judy handed me a plastic bag containing a high efficiency particulate air (HEPA) respirator. I asked her why the need for the respirator if the purpose of our visit was to lift a detention hold, and the patient was no longer infectious. She politely told me that, even though he had converted his AFB sputum smears to negative, it was the hospital's policy for employees and others visiting TB patients in the hospital isolation areas to wear a respirator, regardless of the patient's sputum smear status.

Once in the car, Judy proceeded to fill out her car report and explained to me what she would be doing. She indicated that in order to make better time getting there, she would take the highway and that we should be there in 15 minutes. Judy continued to explain that once we got to the hospital we would be going to the Risk Management Office, where a fax copy of the lift order would be awaiting us from the Department of Health (DOH) Regulatory Affairs Unit. Once we had the order we would need to make six copies: (1) for Risk Management,

(2) for the security guard on the isolation unit, (3) for the nurse; (4) for the patient, (5) for the security guard downstairs, and (6) for her office. To my thinking, this process alone would take 20 to 30 minutes if all went well.

During our ride to the hospital, I asked Judy if she truly believed she would accomplish all that was required within an hour. In her calm, soft-spoken, and diplomatic voice, she indicated that barring any unforseen circumstances (such as traffic or accident), it was possible. Her can-do attitude impressed me. We talked about her experience with the NYC Bureau of TB Control, where she had worked in the DOT Unit for several years and had recently been assigned to this Unit. Without losing focus of time, destination, and mission, she guided us toward the hospital. True to her word, we arrived at the hospital at 3:45 pm.

With mask in hand and deliberate speed, we headed straight for the elevator and the third floor to the Risk Management Office. It became immediately apparent that the staff in the office knew Judy, and she made herself at home looking for the fax transmission. When she could not find it, she asked one of the ladies if they had seen a fax coming in from the health department. They said no, but that if she would write her beeper number on the board, they would page her as soon as the fax came in. While all this was going on, she received a beeper call from the DOH Regulatory Affairs Unit. She called the office and was told that before they could fax the order, she would need to obtain a hard copy of the three negative sputum smear results. It was now 4:00 pm, and Judy was looking at her watch. The picture did not look good.

Without delay and with a sense of mission, she informed me that we would be going to the lab to obtain the hard copy. She entered the lab and informed me that this was not the TB laboratory but another part of the laboratory that has a computer terminal and a printer next to it from which she could print the hard copy of the results. Judy headed straight to the terminal and entered the access code. When one of the supervisors questioned who she was and what she was doing at their terminal, Judy, without looking up from the terminal, told him that she was from the DOH and needed a printout of the patient's lab results. The man questioning her flipped her ID badge over and said okay. Within a minute, Judy had a printout of the results and was heading back to Risk Management.

It was now 4:10 and we still did not have the order. Judy faxed the results and patiently waited for the return fax to come from Regulatory Affairs. Within a few minutes, to my surprise, she received the order. She proceeded to make copies and to distribute a copy to Risk Management.

We then went to the eighth floor to the isolation ward and handed a copy of the order to the guard at the door. Judy proceeded to the nurse's station where she informed the nurse that patient X would now be allowed to leave the unit once the doctor discharged the patient. Without a moment of hesitation, she opened the plastic bag and pulled out the HEPA mask and adjusted the straps and placed it over her mouth. I followed her instructions and we proceeded to the patient's room. Inside the room, sitting on a chair and looking out the window, was a young Hispanic man who was glad to see Judy. She informed him he could leave the hospital once the doctor said it was okay, that the detention

order was lifted, and that she was giving him a copy of the order for his records. She informed him that security, the nurse, and the hospital were notified. The patient was very happy to get the paper and hear that the order was lifted. He said that he was anxious to see his family, whom he had not seen since January.

We walked out of the room, took our masks off, and headed toward the elevators. The time was now 4:17 pm. Upon entering the car, Judy logged the information on the sheet and informed me that she would take another route back to the office because the highway would be congested with Friday afternoon traffic. During our ride back, she took another look at her watch and talked about her job. We exchanged work experiences. It was cutting it close. Would she make this self-imposed deadline? Sure enough, she pulled up in front of the regional office at 4:30. Mission accomplished!

Needless to say, I was very impressed with Judy's performance. It was obvious that this public health advisor was well-trained and had full mastery of the process, and had done this on numerous occasions before. She had the process down to a science. I was especially impressed by the process, coordination, and rapidity by which information was obtained and communicated between the various units. If I did not know better, I would have thought that this field visit was staged for my benefit.

—Reported by Dan Ruggiero
Division of TB Elimination

Tough Love: TB Outreach Workers in Chicago

In November and December of 1996 I performed observations at four of the seven regional nursing stations in Chicago as part of the TB Outreach Worker Activities Evaluation Project. TB outreach workers (ORWs) in Chicago work with a broad range of patient populations, and under a variety of physical and psychological conditions. The following is a brief sketch of the work done by TB ORWs in Chicago: the patient populations they serve, the treatment strategies they use, and the kinds of roles they take on in the field.

Patient Populations

Chicago ORWs work in many different ethnic, racial, political, and socioeconomic environments. Most of their patients are poor, many are immigrants, and a high proportion suffer from problems with drugs, homelessness, or crowded living situations.

Chicago is an extremely diverse city. The South Side is primarily African American, though it encompasses a broad spectrum of neighborhoods, from projects like Cabrini Green and the Robert Taylor Homes, to neighborhoods of trim, tidy streets and single-family homes, to formerly pleasant areas languishing under the triple scourges of joblessness, gangs, and drug abuse. The West Side is more ethnically diverse, populated by Hispanics, African Americans, and recent Polish and Asian (Cambodian, Vietnamese, Filipino) immigrants. The North Side is dazzling in its variety: Armenians, Romanians, Serbs, Poles, Russians, Ukrainians, Filipinos, Koreans, Cambodians, Laotians, Vietnamese, Syrians, Persians, Indians, Guatemalans, Ecuadorians, Mexicans, Chicanos, Puerto Ricans, Nicaraguans, Somalis, Ethiopians, Nigerians, Anglos, African Americans, Sioux, and others. And these are only the patients I saw.

There are some patients who are stable

and live in safe, supportive environments. Some patients are quite proactive about their treatment, and keep careful track of their medications and appointments. These are the dream patients, and make life much easier for the ORWs. They are, however, in the minority.

Homeless patients are one group served by ORWs, and a group which presents unique challenges to treatment. The site on the North Side has a number of homeless patients, most of whom stop by the office to pick up their medication. For these patients (mostly male), ORWs have to depend on the men's desire to get well, and/or on the allure of incentives, usually CTA (Chicago Transit Authority) tokens, because finding and serving these patients would otherwise be time-consuming and difficult. Unfortunately, tokens are chronically in short supply, and this often creates problems for ORWs, as many patients depend on the tokens, and are not pleased to hear that there are none forthcoming. ORWs face long days full of disappointed and reproachful patients when the tokens run out.

Many more patients, while not homeless, are unstably housed, living in flophouses, halfway houses, or single-room occupancy hotels (SROs), or with a succession of relatives. One ORW told me she used to serve one patient who lived in a cardboard box. These are not easy conditions, and these patients often have concerns which are much more pressing than TB. However, ORWs have been very successful even with these difficult cases.

Treatment Strategies

Directly observed therapy (DOT) has been the standard of care in Chicago for many years, and it has proven very effective. In March, city officials celebrated the recent reduction in the number of new cases of TB. The TB program itself, however, is not widely known to city residents. Even though a uniformed ORW (DOT workers wear navy blue with a small badge and a city ID) may visit a home for months, ORWs are very discreet and low-key about their task so as to protect the privacy of their patients.

The Chicago Department of Health does use various incentives to encourage patients to complete their treatment, meaning small sums of money and CTA tokens. What constitutes an incentive in the field, however, is open to interpretation.

One ORW said, "I don't use incentives. They are getting the medicine for free; that should be enough." Despite her hard-line attitude, she gives a great deal to her patients, more than is strictly called for. For example, we stopped to check in on a young woman whose mother had died, just to make sure she was all right. Many of this ORW's patients are hard cases, people in difficult situations, with MDR TB. And though she may not consider it as such, her stubborn insistence upon providing care may well in itself provide an incentive for people who are used to people not caring whether they live or die.

Another ORW spent 2 hours getting a food box (provided free by the city to families in need) for a family, and lends patients her own money when the incentive money runs out. One of her patients asks her for a cigarette every time she comes by; she obliges. Yet another ORW went many miles out of her way twice in one week to check on a patient of hers who was in the hospital: she had promised to bring him some fried chicken. He almost cried over that food. He had been in the hospital a week, and not even his mother had come

to see him. This particular man would have died from surgical complications had the ORW not been so persistent, both with him (his "bad attitude" had intimidated even the PHNs who came to check up on him), and with the hospital staff, who tried to turn him away, twice. The ORW literally saved his life.

Beyond these dramatic examples, ORWs help their patients with more ordinary problems as well: providing transportation to and from doctor's appointments; checking up on and facilitating children's immunizations; helping patients get benefits, food, housing, and heat. These are the small but important things which make life easier.

Structure of Service and ORW Roles
Because ORWs in Chicago are civil employees, recruited through the city, they are rarely working in their own neighborhoods. This means ORWs may commute from the South Side to the North or West Side, a distance of many miles. While no one complains, and all the ORWs appear intimately acquainted with their service areas, it means that they are working far from home and cannot appeal to their patients as neighbors.

I worked with six ORWs: three African American women, one white woman, and two Hispanic men. They drew on a range of styles of self-presentation. The African American women tended to adopt a maternal posture: a sometimes-stern female relative who offers approval and small rewards for good behavior, and mild censure for lapses. One of the ORWs, perhaps significantly the youngest of the six, used a different approach: he was very friendly and self-deprecating, always smiling and joking. He adopted a playful role, almost like a child. He clowned around, always asked what's cooking, and threatened to drop in for dinner. His attitude put most people at ease, though some of his Asian clients with limited English may have been a bit puzzled by him. Though his approach is unusual, it seemed to work: he is a very effective ORW, and can boast of over 100 completions in 3 years.

Several ORWs, across ethnicity and gender, radiate an aura of tough love: their demeanor says "My job is to provide you care, whether you want me to or not." They carry a recognizable authority in neighborhoods where such authority is a necessity. All the ORWs make it abundantly clear that they are not going to leave at the first sign of noncompliance. They are stubborn and tenacious and refuse to take no for an answer, even when that answer is repeated. In this way they are usually successful in breaking down patient resistance, when resistance is offered.

These people are deadly serious about their work, and nearly all work more than the 35 hours a week they get paid for. Most take lunch breaks only rarely, and even more rarely do they take the full hour to which they are entitled. Moreover, their work frequently stretches beyond the confines of the work week, especially for Communicable Disease Investigators (CDIs). One ORW needed to do skin tests on a group of Mexican migrant workers: the only times they could all be at home were Saturday at 6:30 am, and Monday at 10:30 pm. Another goes to visit patients on the weekend. Several ORWs give DOT on the way in to work in the mornings, or on the way home at night. With their dedication and tenacity, anything seems possible.

—Reported by Lynell Lacey
Chicago Field Researcher

Committed and Caring Outreach Workers in Houston

During the 6 weeks that I spent as a field researcher observing the daily activities of outreach workers, I learned a great deal about working with TB patients. I saw what worked in obtaining adherence to the recommended medications and was amazed at the creativity and dedication that was shown by the outreach workers. Through consistency, humor, and compassion, the workers I observed were able to calm angry patients, reassure those who were scared, and make having TB a little less of a burden. One way this was accomplished was by making sure the patient knew how to reach the worker at all times, what TB was, how it was cured, and what to expect from taking the medications. This helped the patient understand why the worker was involved and that the ultimate goal was a healthy patient with no further infections occurring.

An important characteristic I noted in outreach workers was the ability to treat all patients with respect and dignity, no matter what their background. This included those who had different ethnic backgrounds from the worker, spoke foreign languages, and lived alternative lifestyles, as well as those who were in prison. Outreach workers did not see color or lifestyle or make value judgements. Many of the neighborhoods visited were rundown and had high crime rates, but the workers went in and found the patients. They earned the respect of the patients and the community, which allowed them to enter safely.

Many of the workers I observed had developed strong friendships with their patients and celebrated life events such as christenings and birthdays with the patients and their families. The visits were comfortable and friendly, with most of the conversation directed toward non-TB matters. Through these interactions, the patients learned to trust and respect the workers; therefore, they took their medications and attended appointments as requested by their worker.

The outreach workers gave much more than was required by their job description. I was also impressed to find how well the workers coped with the occasional angry outbursts of the patients and their families, and their ability to obtain information necessary to medicate the patient and solve problems so that all parties were happy. They went the extra mile to transport patients, get groceries, give bus fare, and supply incentives to those who needed them. For the youngest patients, gifts such as gum and trinkets were used to get them to take their medications. This took some of the strain off the parents and made the children actually look forward to visits from the outreach worker. One outreach worker I observed even brought treats for the patient's dog so he would not bark during the visit.

As a group, the outreach workers gave selflessly at holiday time to make sure the patients and their families have something to eat and enjoy. There were food and toy drives involving the entire office as well as collections of toiletries and such for the patients in the hospital. All of these activities seemed to make a difference to the patients and their view of treatment. With workers as dedicated as those I observed, I believe TB outreach will continue to be a component of successful TB control.

—Reported by Diana Miller
Houston Field Researcher

NEWS BRIEFS

The New York City Bureau of TB Control has its newly revised and updated clinic manual available on the World Wide Web at http://www.ci.nyc.ny.us/health. Printed copies of the clinic manual will also be available for distribution. To order a copy of the clinic manual of the NYC Bureau of TB Control, write to: The NYC Dept. of Health, Bureau of TB Control, Education and Training Unit, 225 Broadway, 22nd Floor - Box 72B, New York, New York 10007, Attention: Marcia Hampton.

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Data on verified TB cases reported to DTBE from 1985 through 1995 are now available on CDC WONDER. These data are extracted from the CDC TB surveillance system. The file contains one line of data for each verified case of TB reported from each state, D.C., Puerto Rico, and the U.S. Virgin Islands. Each line contains 15 variables including demographics (e.g., age, race, sex, etc.), history of previous TB, and clinical information (e.g., site of disease and bacteriologic results). Users must have a CDC WONDER account to access the file. The data file can also be accessed via the CDC WONDER's World Wide Web site, http://wonder.cdc.gov/.

TRAINING AND EDUCATIONAL MATERIALS

Residents of correctional facilities are among the groups at highest risk for TB in the United States. For optimal control of TB in correctional facilities, it is essential to educate health providers and incarcerated individuals. As a part of a National Heart, Lung, and Blood Institute TB Academic Award, Dr. Gail L. Woods collaborated with the Texas Department of Health TB Elimination Division and the Texas Department of Criminal Justice Media Services to produce a TB educational video in both English and Spanish that targets incarcerated persons. The video, approximately 7.5 minutes long, portrays an offender who is being screened for TB infection and is subsequently found to have a positive skin test result. Key concepts discussed in the video are risk factors for TB, emphasizing infection with HIV; differentiation between TB infection and TB disease; and the importance of adherence to INH preventive therapy. To order, mail a check or money order made out to the Texas Health Foundation for $7 per video (specify English or Spanish) and mail to: Texas Health Foundation, P.O. Box 49102, Austin, TX 78765.

UPDATE FROM THE RESEARCH AND EVALUATION BRANCH

FDA Notice on Isoniazid-Associated Hepatitis Published in the *Journal of the American Medical Association*

The U.S. Food and Drug Administration recently published a brief notice in the *Journal of the American Medical Association* (*JAMA* 1997;227[21]:1664) about a change in product labeling for isoniazid to strengthen the warning about isoniazid-associated hepatitis mortality. The change in the labeling states that "a recent report suggests an increased risk of fatal hepatitis associated with isoniazid among women, particularly black and Hispanic women. The risk may also be increased during the postpartum period. More careful monitoring should be considered in these groups, possibly including more frequent laboratory monitoring."

The notice indicated that the labeling

revision was prompted by information in the 1994 ATS/CDC treatment statement (Treatment of tuberculosis and tuberculosis infection in adults and children. *Am J Respir Crit Care Med* 1994;149:1359-1374). The "recent report" mentioned in the revised labeling statement was the same ATS/CDC statement, and the recommendations on monitoring are virtually identical to those published by ATS/CDC. Therefore, no change in practice is indicated based on this information. However, both providers and patients should continue to be made aware of the association of isoniazid with fatal hepatitis and should follow current recommendations on its use.

—Reported by Rick O'Brien, MD
Division of TB Elimination

NEW CDC PUBLICATIONS

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Braden CR, Templeton GL, Stead W, et al. Retrospective detection of laboratory cross-contamination of *M. tuberculosis* cultures with use of DNA fingerprint analysis. *Clin Infect Dis* 1997;24:35-40.

Cantwell MF, Binkin NJ. Impact of HIV on tuberculosis in sub-Saharan Africa: a regional perspective. *Int J Tuberc Lung Dis* 1997;1(3):205-214.

Davis YM, McCray E, Simone PM. Hospital infection control practices for TB.*Clinics in Chest Medicine* 1997;18(1):19-33.

Kenyon TA, Ridzon R, Luskin-Hawk R, et al. A nosocomial outbreak of multidrug-resistant tuberculosis. *Ann Intern Med* 1997;127:32-36.

McCray E, Weinbaum CM, Braden CR, Onorato IM. The epidemiology of tuberculosis in the United States.*Clinics in Chest Medicine* 1997;18(1):99-113.

Ridzon R, Meador J, Maxwell R, et al. Asymptomatic hepatitis in persons who received alternative preventive therapy with pyrazinamide and ofloxacin. *Clin Infect Dis* 1997;24:1264-5.

Smith PJ, Thompson TJ, Jereb JA. A model for interval-censored tuberculosis outbreak data. *Statistics in Medicine* 1997;16:485-96.

Villarino ME, Ridzon R, Weismuller PC, et al. Rifampin preventive therapy for tuberculosis infection. Experience with 157 dolescents. *Am J Respir Crit Care Med* 1997; 155(5):1735-1738.

PERSONNEL NOTES

Diane Bennett, MD, MPH, assumed the position of Medical Epidemiologist, Surveillance Section, Surveillance and Epidemiology Branch (SEB), effective June 1. She attended the University of Massachusetts Medical School and received her MPH from Johns Hopkins; she also has a master's degree in health education from Harvard University. She is an honorary senior lecturer in epidemiology at the London School of Hygiene and Tropical Medicine. She worked for NIOSH in Cincinnati as an EIS officer, then was

sent to Sierra Leone to run the CDC Lassa Fever Project for 3 years. Following that, she worked for the World Health Organization's Global Programme on AIDS with frequent short-term assignments in Africa, then came back to work for EPO assigned to the Indian Health Service as Area Epidemiologist for 40 tribes in five states. For the past 4 years she worked as a Medical Epidemiologist for the Communicable Disease Surveillance Centre in the UK. While there she ran several unlinked anonymous HIV surveillance projects and also started up a nationwide laboratory surveillance system for TB, focusing on drug resistance.

Sharon Bloom, MD, joined SEB as an EIS Officer assigned to the Epidemiology Section effective July 1. She received her BA from Brown University and her MD from Stanford University. She speaks fluent Spanish, Mandarin, Cambodian, Vietnamese, Thai, and Lao. Before joining DTBE, Dr. Bloom was a House Officer at the Cottage Hospital in Santa Barbara, California.

David Crowder will be joining DTBE as the program consultant for area 4 (Arkansas, Baltimore, Delaware, Maine, Maryland, New Hampshire, Ohio, Pennsylvania, and Philadelphia). David was most recently assigned to the TB program in Tennessee. He joined CDC in 1988 in the STD/HIVP program in Florida. He joined DTBE in 1991 as a public health advisor in New Orleans, and was assigned to Tennessee in 1993.

Amy Curtis, PhD, MPH, joined SEB on July 1 as an EIS Officer assigned to the Surveillance Section. She received her BA and MPH degrees from the University of Michigan, and recently completed her PhD at the University of Michigan as well.

Charles Gaines, public health advisor who was assigned by CDC to the Richmond, Virginia, sexually transmitted disease (STD) program, joined the Field Services Branch on May 25. Following a period of orientation, he will be assigned to one of the Field Operations Sections as a consultant. Charles came to work for CDC in 1971 in the Detroit training program of the Venereal Disease Control Branch, now the Division of Sexually Transmitted Disease Prevention (DSTDP). Following several STD assignments, he worked in TB in the mid-1970s in New York City and from 1983 to 1986 in Chicago. Since 1986, he has had assignments in DSTDP in Toledo, Ohio; Jackson, Mississippi; and Richmond.

Sue Gerber, public health advisor assigned to the TB program of the Los Angeles County Department of Health Services, was selected by the International Activity, Office of the Director, DTBE, for a 3- to 6-month temporary duty (TDY) assignment in Botswana, Africa. She is a member of the Botswana-USA (BOTUSA) TB research management team and works with Dr. Thomas Kenyon, BOTUSA Project Director. Sue functions as the principal management official (PMO) on the BOTUSA project. In this capacity, she has broad responsibilities for administration, management, and evaluation activities. Her duties include coordinating project activities with staff of the U.S. Embassy and the Botswana Ministry of Health. She will also assist with the organization of national and international meetings, conferences, and workshops related to TB control in Botswana. Her TDY assignment began May 12, 1997.

Veronica Greene, DDS, MPH, a medical epidemiologist in the Research and Evaluation Branch, left DTBE in May 1997.

Her projects in REB included working on the Rifapentine clinical trial, a variety of lab-related issues, and preventive therapy recommendations for persons exposed to MDRTB. From 1993 to 1995 she was an EIS officer in the Surveillance Branch, Division of HIV/AIDS. She will be the director of the Residency Program of the Department of Oral and Maxilofacial Surgery, King-Drew Medical Center, Los Angeles, California. We enjoyed and will miss Veronica's cheerful disposition and good communications with our study investigators.

Loretta Johnson has joined the Division of TB Elimination as Dr. Castro's secretary and personal assistant. Loretta came to DTBE from the Division of Nutrition and Physical Activity, National Center for Chronic Disease Prevention and Health Promotion (NCCDPHP). Loretta started on June 23.

Shelia Jones of the Office of the Director, DTBE, has accepted a promotion and reassignment to Division of Adolescent and School Health (DASH), NCCDPHP. She will be the Administrative Officer for DASH. Her last day with the division was June 20. Although Shelia only arrived in DTBE about a year ago, she is known for being cheerful, dependable, and competent; we will truly miss her.

Awal Khan, PhD, joined REB in March 1997 as an Epidemiologist. He holds a bachelor's degree in mathematics (1978) and a master's degree in demography (1982) from the University of Dhaka in Bangladesh. From 1981-1985 he was a senior field research officer at the International Centre for Diarrheal Disease Research, Bangladesh. In 1991 he was awarded a PhD in nutritional sciences at the University of Arizona. From 1992-1995 he was an NIH postdoctoral fellow in maternal and child nutrition at Cornell University. From 1995-1997, he served as acting chief and systems analyst for the TB Epidemiology Unit, and as surveillance epidemiologist for the HIV/AIDS Unit, both in the Epidemiology & Prevention Branch, Division of Public Health, Georgia Dept. of Human Resources. In Georgia he collaborated on studies of HIV/TB, rifampin-resistant TB, completeness of TB reporting, and TB in the prison system, in addition to producing extensive surveillance summaries and assisting in development of cooperative agreement proposals. Awal brings especially strong skills in data management and analysis. He will work initially on several aspects of the Rifapentine trial, but will become involved in other research projects in REB in the future.

Kayla Laserson, PhD, who will be joining the International Activity at the end of July as a first-year EIS officer, recently received her doctorate in international health epidemiology from the Harvard School of Public Health. Her undergraduate degrees are in history and science from Radcliffe College, and she also holds a masters degree in tropical health from the Harvard School of Public Health. She has had considerable field experience in Latin America and Africa. She speaks fluent Spanish and has served as a Spanish interpreter on a part-time basis at the Brigham and Women's Hospital in Boston.

Scott McCombs, MPH, has left DTBE. Scott, formerly an Epidemiologist in SEB, assumed the position of Chief, Systems Integration Activity, Division of Public Health Surveillance and Informatics, EPO, effective April 27. While in DTBE, Scott had the key responsibility of serving as the primary liaison for TB surveillance between

DTBE and state and local health departments. Before joining DTBE in February 1993, he was an Epidemiologist in the HIV Seroepidemiology Branch in the Division of HIV/AIDS Prevention.

Katrina Pollard, a Health Communications Specialist with the Communications and Education Branch of DTBE, has left for a reassignment to the National Center for Environmental Health. Katrina had lead responsibility for developing and implementing health communication and technical information activities in DTBE. Some of her many projects included handling media calls, helping develop public health messages and press releases, coordinating Internet activities, and consulting on graphics activities. Katrina's last day was June 16. She handled her many assignments and relationships with tact, professionalism, and a gracious demeanor, and will be missed by all.

Mary Reichler, MD, assumed the position of Medical Epidemiologist, Epidemiology Section, SEB, effective July 1 . She received a BA degree in biology and her MD degree from the University of Louisville. She completed an internship and a residency in internal medicine at the University of Michigan, as well as a fellowship in Geographic Medicine and Infectious Diseases at Case Western Reserve University. From 1989 to 1991 Dr. Reichler was an EIS officer in the Respiratory Diseases Branch, DBMD, and served in the Polio Eradication Activity, National Immunization Program, from 1991 to the present.

Nilka Ríos has left the division. An Epidemiologist with the Research and Evaluation Branch, Nilka accepted a promotion with the Division of Diabetes Translation in NCCDPHP. While in the division, Nilka made major contributions to the Hospitalization Length of Stay study. She was with DTBE for 3 1/2 years; her last day in the division was June 23. We will miss her friendliness and dedication, and her ability to work well with others.

Mona Saraiya, MD, MPH, will be joining the International Activity in mid-July as a staff medical epidemiologist. She is a graduate of the University of Chicago and Rush Medical College. She completed internships in medicine at the University of Wisconsin and in psychiatry at the University of Oklahoma. Subsequently, she completed a preventive medicine residency at Morehouse School of Medicine and received an MPH in international health from Emory. She is board-certified in preventive medicine. After residency, she joined EIS, where she was assigned to the Pregnancy and Infant Health Branch of the Division of Reproductive Health and worked on a variety of infant and maternal health issues. She will be working on several projects related to TB among foreign-born persons, including an upcoming project pertaining to the civil surgeon examination process for persons applying for permanent residence from within the U.S. In addition, she will assume responsibility for the project in Manila to improve immigrant and refugee screening begun by Dr. Zuber and will be involved in further studies of health care workers in developing country settings.

Joanne Stone, branch secretary of the Research and Evaluation Branch, has left the division. Joanne accepted a position as a project assistant in the Office of Program Planning and Evaluation (OPPE). She transferred from REB to OPPE May 11. We will miss her good humor and excellent work.

Charles Wells, MD, has completed the EIS program and has left DTBE to begin a 1-year infectious disease fellowship at Emory University on July 1. During his tenure in the International Activity, he conducted studies on immigrant and refugee screening in Washington State; conducted a study of foreign-born Hispanic TB patients on the U.S.-Mexican border that was done in collaboration with TB controllers in California, Arizona, New Mexico, and Texas; assisted the government of Latvia in establishing drug resistance surveillance as a part of a WHO collaborative project; and conducted studies in conjunction with the TB program of Vietnam on quality assurance of sputum smear microscopy.

Patrick Zuber, MD, left DTBE at the end of June and will spend the next year doing a preventive medicine residency practicum with Dr. Paul Weisner in the DeKalb County Health Department in Atlanta, working primarily on managed care issues. During his 3 years with the International Activity, he conducted studies of immigrant and refugee screening with the Hawaii and Los Angeles TB programs; conducted additional studies of the risk of TB among foreign-born persons at the national level; developed a project in Manila, Philippines, designed to improve immigrant and refugee screening procedures; collaborated with New York State on a project to assess the sensitivity and specificity of various diagnostic techniques for *M. tuberculosis* that could potentially be used in overseas immigrant and refugee screening; and collaborated with Hospital Infections Program (NCID), NIOSH, and CDC's HIV/AIDS field sites in Ivory Coast and Thailand on studies of health care worker TB risk in developing country settings and the design of interventions to decrease this risk.

CALENDAR OF EVENTS

July 21-23, 1997
The 32nd Research Conference on TB and Leprosy
Cleveland, Ohio
Sponsored by NIH and hosted by Case Western Reserve University. Will focus on molecular genetics, immunobiology, and pathogenesis of *M. tuberculosis* and *M. leprae*; development of improved animal and cell culture models; and application of basic technology.
Conference Coordinator
Tel (216) 368-1949
Fax (216) 368-0105

August 12-15, 1997
TB Program Manager's Course
San Francisco, California
Requires a special or supplemental application. To request form, contact:
Training Coordinator
Francis J. Curry National TB Center
(415) 502-4600

September 8-12 and December 1-5, 1997, and March 2-6, 1998
Comprehensive Clinical TB Course
Lantana, Florida
A.G. Holley State TB Hospital
Tel (561) 582-5666 ext. 280
Fax (561) 547-5012

September 13, 1997
TB Update Course
San Francisco, California
Training Coordinator
Francis J. Curry National TB Center
(415) 502-4600

September 25, 1997
TB Update II Course - Directly Observed Therapy (DOT): An Overview
Newark, New Jersey
Debra Jean Kantor

NJ Medical School National TB Center
(973) 972-3273

October 6, 1997
Tuberculosis 101 Course
Newark, New Jersey
Debra Jean Kantor
NJ Medical School National TB Center
(973) 972-3273

October 15-17, 1997
TB Intensive Course
San Francisco, California
Training Coordinator
Francis J. Curry National TB Center
(415) 502-4600

October 15-19, 1997
Frontiers in Mycobacteriology:
TB at the Millenium - Debating the Controversies
Vail, Colorado
National Jewish Center for Immunology
and Respiratory Medicine
(303) 398-1000

October 23-24, 1997
TB Intensive Course
Newark, New Jersey
Debra Jean Kantor
NJ Medical School National TB Center
(973) 972-3273

December 10, 1997
TB Update Course
San Francisco, California
Training Coordinator
Francis J. Curry National TB Center
(415) 502-4600

February 26-28, 1998
IUATLD North American Region 3rd Annual Meeting
"Tuberculosis Among the Disadvantaged"
Vancouver, British Columbia, Canada
Deadline for submitting poster abstracts is Jan. 10, 1998.
IUATLD/British Columbia Lung Association
Tel: (604)731-5864
Fax: (604)731-5810
E-mail: info@bc.lung.ca